CENTRAL REGION INTEGRATED SCIENCE PARTNERSHIP FUNDS
FY 03 Project/Activity Outcome Report
Due: January 9, 2004

Date:	**9 January 2004**
Project/Activity Title:	**Fire Science-RPF-8**
Account Number:	**4556-AW800**
Principal Investigator:	**John Moody, WRD**
Partners/Collaborators and Affiliation:	**Deborah Martin, WRD; Sue Cannon, Ray Kokaly, GD**
Total Funding Approved:	**$40,000**
Funding Received:	**3 July 2003**
Total Expenditures:	**$40,000**

Objective of Project/Activity: ***(Provide short description of project/activity goals and list outcomes/products.)***

Develop a set of tools and methodologies that will be useful to land managers to predict erosion and sedimentation rates based on knowledge of the spatial patterns of rainfall and rainfall intensity in mountainous terrain.

Project/Activity Accomplishments: ***(What outcomes/products were achieved including what benefits were derived and by whom?)***

1. A report titled "Rainfall characteristics over the Hayman burned area" by Andrea G. Williams and John A. Moody was finished and given to Mark Smith in the USGS Colorado District to aid them in developing realistic predictions of the100-year floodplain after the Hayman Fire.

2. Measurements (based on historical Doppler Radar data) of the 30-minute maximum rainfall intensity and other rainfall characteristics for subwatersheds within the Hayman burn perimeter were provided to Mark Smith in the USGS Colorado District.

3. Based on data analysis of erosion in Spring Creek Watershed burned by the 1996 Buffalo Creek Fire and in Rendija Canyon burned by the 2000 Cerro Grande Fire, John prepared and presented two invited lectures at the Geological Society of America's Wildland Fire Impacts on Watersheds for Land Managers and Scientists. The title of the talks were:
   a. Comparison of the Erosional Response after Wildfire in Two Geological Terrains
   b. Characterizing Convective Rainfall: Driver of Runoff and Erosion in Burned Landscapes

4. We have in preparation a multi-authored paper for publication in a scientific journal titled: Comparison of the erosional response after wildfire in two geological terrains" by John A. Moody, Deborah A. Martin, and Sue Cannon.

Final Results: ***(Describe how funds awarded were used to promote Director's goals of integrated science)***

We received funds on 3 July 2004 and in the remaining two months we used these funds to:

1. Support a summer student working with Ray Kokaly on LIDAR data.
2. Support work by Sue Cannon on debris flows.
3. Support a student service contract for a graduate student from CU to continue analysis of photogrammetry data to measure erosion in Rendija Canyon burned by the 2000 Cerro Grande Fire and to develop statistical tools for analyzing spatial and temporal variability of rainfall data collected in the Buffalo Creek, Cerro Grande, and Hi Meadow burn areas.

Some of this support has resulted in the products listed above and the remainder is being used to continue analysis to produce additional products.